REMARKS

Reconsideration and allowance is requested in consideration of the following remarks and amendments. Claims 1-11, 13-18 and 20-26 are currently pending in connection with the present application. Claims 1, 10, 16, 17, 20, 21, 24 and 25 are independent claims. By this amendment, claims 1, 4, 5, 8, 10, 16, 17, 20, 24 and 25 have been amended. In particular, claim 1 has been amended to incorporate subject matter from claim 4, claims 10 and 24 have been amended to incorporate the subject matter of former claim 12 and claims 16, 17 and 25 have been amended to incorporate the subject matter of former claim 19. Claims 12 and 19 have been cancelled, without prejudice or disclaimer of the subject matter contained therein. No claims were added. There is no new matter. Applicants traverse the rejections set forth in the Office Action dated October 12, 2005.

Applicant will attempt to contact the Examiner to discuss the arguments and amendments prior to the Examiner's response to this Amendment.

Drawings

Applicants acknowledge that the drawings have been accepted.

Claim Objections

Applicants have amended claims 5, 8 and 20 to overcome the Examiner's claim objections. However, with regards to claims 22 and 23, Applicants submit that the aforementioned claims do not fail to further limit the subject matter of the previous claim, because claim 22 is directed towards a central office, while claim 23 is directed towards a compact remote power source.

Description of an Example Embodiment

FIG. 3 illustrates a method of transmitting electrical power over telephone wires in accordance with an example embodiment of the present invention. A power voltage may be received at a central office (CO) power node 320 and passed through a DC/DC bulk power converter 325, power aggregator 335, and transient protectors 340 connected via twisted pair lines 330 to a compact remote power supply 350. At the receiving end, the twisted pair lines pass through transient protectors 355 to a remote power source 360. The remote power source 360 has at least one separate remote converter 365. The arrangement 300 may enable the delivery of over 100 watts of power by combining multiple power converters, while simultaneously limiting the incoming power from each of the twisted pairs to 100 watts each.

PRIOR ART REJECTIONS

35 U.S.C. §102(e) Cohen Rejection

Claims 1-3, 7-11 and 16-26 stand rejected under 35 U.S.C. §102(e) as being anticipated by Cohen (U.S. Patent No. 6,665,404). This rejection is moot in light of the amendments to independent claim 1 to incorporate the subject matter of dependent claim 4, and the amendments to independent claims 10, 21, and 24 to incorporate the subject matter of dependent claim 12. Applicant traverses this rejection with respect to independent claims 16, 17, 20, and 25, and dependent claims 18 and 26.

Cohen discloses an apparatus for remote line powering in a telecommunications network including supplying electric power via a plurality of line pairs and aggregating the electric power to provide power suitable for an appliance or other device.[1] The electric power aggregator 25

[1] Cohen, Fig. 1.

includes a plurality of separate power supervisors 30, a plurality of separate controllers 35, and a plurality of separate power stage converters 40. Each of the plurality of separate power supervisors 30, separate controllers 35, and separate power stage converters 40 correspond to a line pair termination 20, terminating a single line pair.[2] The apparatus includes an alarm and logic unit 65 and a low voltage disconnect unit 70. The alarm and logic unit 65 is operative to generate an alarm indicating a loss of any of one or more of the power lines and low voltage output levels.[3] The low voltage disconnect unit 70 is operative to detect when an aggregate output voltage is lower than an output voltage acceptable by the telecommunications standard.[4]

During start-up, each of the line pair terminations provides a low voltage signature on the output line. Once all the respective low voltage signatures have been detected, all the line pair terminations uniformly increase their respective output voltage until the voltage/current values are compliant with the desired telecommunication standard. The alarm and logic unit 65 appears to be the only component in Cohen capable of coordinating this operation.

Applicant submits that Cohen does not teach or suggest "delaying, during a start-up operation, **... wherein the delay is a function of a size of an energy storage capacitor in an input path to a given remote power converter**", as recited in amended independent claim 16. Instead, in Cohen the start-up delay is a function of the time it takes for each of the line pairs to identify themselves using a signature voltage, which is detected by the apparatus 10 on the output of the line pair terminations.[5]

Accordingly, Applicants respectfully submit that Cohen fails to disclose, teach, suggest or render obvious each and every feature of independent claim 16. For similar reasons, independent claims 17, 20 and 25 are also patentable (although claims 16, 17, 20 and 25 should

[2] Cohen, Col. 4, lines 7-15.
[3] Cohen, Col. 4, lines 43-47.
[4] Cohen, Col. 4, lines 51-55.

be interpreted solely based upon the limitations set forth therein). Therefore, Applicants request that the rejection of independent claims 16, 17, 20 and 25 and dependent claims 18 and 26 under 35 U.S.C. §102(e) be withdrawn.

35 U.S.C. §103(a) Cohen/Fujiwara Rejection

Claims 4-6 and 12-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cohen in view of Fujiwara et al. (U.S. PG Pub. No. 2004-0228060 A1). Applicants respectfully submit that this rejection is moot with respect to cancelled claim 12, and further is inapplicable to amended, independent claims 1, 10, 21 and 24, incorporating subject matter from part or all of dependent claims 4 or 12, for at least the reasons set forth below.

On page 6 of the Office Action, the Examiner acknowledges that Cohen is silent with regard to "having a transient protection without a fuse or voltage controlled shorting switch" and allegedly relies on Fujiwara to meet the limitations.

Fujiwara is directed to a telephone interface protection circuit that uses a voltage limiting element ZNR to limit transient overvoltages to no more than a limited voltage, and uses a positive temperature co-efficient thermostatic resistor (PTC) to limit the flow of overcurrents to the circuit. The ZNR and PTC are coupled together and constructed so that heat generated by the ZNR can be efficiently transferred to the PTC to reduce current by increasing the resistance of the PTC. The device disclosed in Fujiwara is directed specifically at telephonic appliances, such as a telephone.

Applicants submit that neither Cohen nor Fujiwara, either alone or in combination, teach or suggest "protecting one or both of [a] power source and a given remote power converter against transient-induced damage", as recited in independent claim 1. On the contrary, any use

[5] Cohen, Col. 4, lines 58-65.

of the protection circuit disclosed in Fujiwara as applied to Cohen would necessarily be employed at the output of aggregator 10, thereby protecting the appliances fed by the power supply apparatus disclosed in Cohen, because Fujiwara only discloses **protecting appliances** against transient damage. Fujiwara does **not** disclose, teach, or suggest **protecting a power source or a remote power converter**.

Lack of Motivation to Combine References

The alleged motivation cited by the Examiner to combine Cohen and Fujiwara to reject former dependent claims 4 and 12, is that "the arrangement provides reliable protection at low cost."[6]

Applicants assert that the Examiner's alleged motivation is based upon Applicants' own disclosure and is therefore an improper use of hindsight. The Examiner merely viewed the present application, and attempted to select prior art containing a telephonically related surge protector, without citing specific evidence or motivation to combine the references, other than providing conclusory statements regarding the motivation and obviousness. Accordingly, absent such motivation, a prima facie case of obviousness under 35 U.S.C. §103(a) has not been established and the rejection must be withdrawn.

Applicants direct the Examiner's attention to two cases decided by the Court of Appeals for the Federal Circuit (CAFC), In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir. 1999) and In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed.Cir. 2000). Both of these cases set forth very rigorous requirements for establishing a prima facie case of obviousness under 35 U.S.C. §103(a).

To establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion, or teaching of the desirability of making the specific

combination that was made by the Applicants. The motivation suggestion or teaching may come explicitly from one of the following:

(a) the statements in the prior art (patents themselves)

(b) the knowledge of one of ordinary skill art, or in some cases,

(c) the nature of the problem to be solved.

See Dembiczak, 50 USPQ at 1614 (Fed.Cir. 1999).

In order to establish a prima facie case of obviousness under 35 U.S.C. §103(a), the Examiner must provide particular findings as to why the two pieces of prior art are combinable.[7] Broad conclusory statements standing alone are not "evidence".

Neither Cohen nor Fujiwara teach or suggest combining their features to arrive at independent claim 1; nor does the Examiner cite any particular passage that provides evidence that such a combination would be obvious to one of ordinary skill in the art. On the contrary, the disclosed references seek to overcome differing problems and therefore do not constitute an obvious combination. Cohen is directed to a transmission of power over telephone lines to transfer high voltage and high current power using a plurality of line pair terminations.[8] Fujiwara is directed to a method for controlling power surges entering a single telephone appliance (i.e., a telephone).[9]

Relying on common knowledge or common sense of a person of ordinary skill in the art without any specific hint or suggestion of this in a particular reference is not a proper standard for reaching the conclusion of obviousness.[10]

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[6] Office Action, dated October 12, 2005, page 6.
[7] See Dembiczak, 50 U.S.P.Q. 2d at 1617.
[8] Cohen, Figs. 1, and 2; Col. 3, lines 25-35.
[9] Fujiwara, Fig.1, paragraph [0008].
[10] See, In re Sang Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002).

Given the distinct and differing problems solved by the references, neither reference provides any evidence teaching or suggesting their combination. Thus, it would not have been obvious to one of ordinary skill in the art to combine the teachings of Cohen and Fujiwara. Further, relying on obvious design choices, the reason for combining teachings of the various references is again not the proper standard for obviousness. If the Examiner is relying on personal knowledge to support a finding of what is known in the art, the Examiner must provide an affidavit or declaration setting forth specific factual statements and explanations to support the findings.[11]

In view of the above arguments, Applicants assert that the Examiner has not established the required motivation to combine the teachings of Cohen and Fujiwara and therefore fails to establish a prima facie case of obviousness under 35 U.S.C. §103(a).

Accordingly, Applicants submit that claim 1 is patentable. For somewhat similar reasons, Applicants submit that claims 10, 21 and 24 are also patentable (although claims 1, 10, 21 and 24 should be governed solely based on the limitations present therein and should not be limited, in any way, by limitations present in claim 1 and not present in claims 10, 21 or 24). Therefore, Applicants request that the rejection of independent claims 1, 10, 21 and 24 and dependent claims 2-9, 11-15, 22 and 23 under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-11, 13-18 and 20-26 in connection with the present application is earnestly solicited.

[11] See, 37 C.F.R. §1.104(d)(2) and MPEP §2144.003(c).